

REMARKS

Claims 1-10 stand rejected under 35 USC §102(b) as being anticipated by Japanese Patent Publication 11-6591. The Examiner finds that the cited Japanese patent publication discloses a connection verification device used with a tube 1 that has an annular engagement projection 22 and an annular verification projection 23. The tube fits into the connector 10 and is sealed therewith via seals 15,16 and retained via retaining means 32. The Examiner also notes that a clip body 40 is presented having opposite U-shape clip portions 42 and 43 for verifying correct connection of the tube with the connector 10. Then, as shown in Figs. 1 and 2 of the reference, if properly connected, the clip body 40 will be allowed to slide down in a direction X perpendicular to the central axis of the coupling and, if not properly connected, the clip body 40 will not be allowed to move in the X direction. The Examiner then compares the figures of the referenced patent publication to Figs. 20 and 21 of the present invention (however, it is believed that the Examiner meant to compare the reference with Figs. 10 and 11 of the present invention). In addition, the Examiner finds that the clip body 40 is provided with reinforcement ribs 46a as shown in Fig. 3.

It appears that the Examiner's analysis, to this point in the rejection (line 13 of paragraph 2.), applies to claim 1, even though no specific claim is identified by the Examiner. On this basis, however, the rejection of claim 1 is respectfully traversed and reconsideration requested in view of the amendment to claim 1 above and the comments which follow.

With respect to the cited Japanese patent publication 11-6591, applicants wish to initially clarify the Examiner's reading of the structure of the reference on the claims. In the comparison that follows, the reference numbers in parentheses identify claim elements from the subject application. The Examiner's attention is also directed to reference Figures R1-R3 on enclosed Attachments A-C. The portion of the clip body 40, also identified as "A" in the Attachment drawings, of the reference is equivalent to applicants' clip body (61). The reference clip body 40 includes a connector receiving recess of U-shape B (compared to applicants' connector receiving recess (65)) and a radially inwardly

directed extending portion 43 (75). The connector receiving recess B (65) is formed to receive a large diameter portion of the connector 14 (1) therein. A connection verifying portion 42,44,46 (63) is provided on an opposite axial side of the clip body 40 (61) and includes a pipe receiving recess of U-shape 44a,44b (67) provided with an opening to receive an opposite axial end of the pipe 20 (45) therein. A reinforcement rib 46a (105) is formed on an outer peripheral surface of the connection verifying portion 46 (63). The radially inwardly directed extending portion 43 (75) is arranged to hold a portion from one axial end of the large diameter portion 14 (1) to the annular verification projection 23 (57) from axially opposite ends thereof. The clip body 40 (61) and the connection verifying portion 42,46 (63) being integrally connected with one another via a connection part 41 (109) at a position opposite the openings of the connector receiving recess 45a,41 (65) and pipe receiving recess 44 (67).

However, there are additional features in the structure recited in applicant's claim 1 that are absent from Japanese Patent Publication 11-6591.

Referring to amended claim 1, it is now recited that the connection verifying portion (63) is **separated** from the clip body (61). This is clearly not the case with the comparable elements of the cited reference, namely, clip body 40 and connection verifying portion 42,46, all of which comprise one integral body. With reference to Attachments A-C, the structure of the prior art connector clip is shown. In the clip body 40 of the cited references, the connector receiving recess B of the clip body and the connection verifying portion 42,46 are not separated, but are instead connected along the entire circumference of the clip as identified by element C in the Attachment drawings. Referring also to the last paragraph of amended claim 1, because the prior art clip body 40 is **not separated** from the connection verifying portion 42,46, the prior art construction has no connection part equivalent to applicants' connection part (109). Also, the location of the connection part (109) at a position opposite the openings of the connector receiving recess (65) and the pipe receiving recess (67) permits the connector clip to be constructed so that the respective recesses (65) and (67) have different resistances to widening or opening, as will be discussed below.

In addition, applicants' reinforcement rib (105) is now defined, in paragraph 4 of amended claim 1, as being "circumferentially extending" on a "radially" outer peripheral surface of the connection verifying portion (63). By comparison, in the prior art reference, the reinforcement rib 46a is not formed to extend circumferentially on a radially outer peripheral surface of the connection verifying portion 46.

The two features of applicant's invention which are not shown in the prior art, namely, the connection part (109) and the reinforcement rib (105), serve to provide an important function that solves a problem in prior art constructions such as that shown in the cited reference. The connector clip (59) is constructed such that the connection verifying portion (63) is separated from the clip body (61). Thus, the pipe receiving recess (67) of the connection verifying portion (63) may be constructed so as to increase the widening resistance without affecting the widening resistance of the connector receiving recess (65) of the clip body (61). For example, the connector clip (59) might be constructed such that the connection verifying portion (63) is made more stiff, as by the addition of a reinforcement rib, while the clip body (61) is dimensioned to smoothly receive the connector. In the prior art construction, by contrast, if the connection verifying portion 42,46 and the clip body 40 or A are connected to each other entirely along the outer circumference of the connector clip, if the connection verifying portion 42,46 is constructed so as to increase its widening resistance, the widening resistance of the clip body 40 or A is also increased. The result is that it becomes difficult to mount the clip body A to the connector. This problem is resolved by the construction now recited in amended claim 1.

Claim 1 has also been amended, in paragraph 3, to correct an ambiguity and to more clearly recite the portion of the pipe (45) that is received in the pipe receiving recess (65) with respect to the position of the verification projection (57). This change is clearly supported by the drawings and an amendment has been made in paragraph [0048] of the specification to reflect this clarification.

Returning now to the Examiner's rejection of remaining claims 2-10, claim 2 has been cancelled.

The Examiner's rejection of claim 3 is respectfully traversed. Claim 3 recites a snap-fit portion (85) that is formed on an opposite axial end of the verifying body (83) (i.e. the end opposite the clip body (61)). This location is axially opposite the location in the cited reference where the snap-fit portion 44a, 44b, 44c is positioned on the axial end of the verifying body 46 closest to the clip body 40. In addition, claim 3 recites that the verifying body (83) and the snap-fit portion (85) are integrally connected via a joint part (111) which is located at a position opposite the openings of the connector receiving recess (65) and pipe receiving recess (67). There is no identical or equivalent joint part in the cited reference because the verifying body 46 and the snap-fit portion 44 are one and the same part.

The Examiner's rejection of claim 4 is also respectfully traversed. Claim 4 recites the special situation of the connector clip where the annular verification projection (57) is located between the verifying body (83) and the snap-fit portion (85). This special situation is shown in Fig. 13 and its significance is discussed in paragraph [0051] on page 16. In the cited reference, it is not possible to position the annular verification projection 23 between the verifying body 46 and the snap-fit portion 44 because they are axially coincident.

In the Examiner's rejection of claim 5, beginning in line 13 of paragraph 2 and continuing to line 6 on page 3, the Examiner asserts that the prior art clip has a first arcuate wall portion and a pair of first side wall portions which are connected integrally to the first arcuate wall portion on widthwise opposite ends thereof, the connection verification portion includes a second arcuate wall portion and a pair of second side wall portions which are connected integrally to the second arcuate wall portion at widthwise opposite ends thereof, the connection part is formed so as to bridge between the first arcuate wall portion of the clip body and the second arcuate wall portion of the connection verification portion and the first side wall portions and the second side wall portions are separated from each other. This analysis, it is respectfully submitted, requires that the first and second arcuate wall portions and their related first and second side wall portions comprise integral and axially adjacent portions of the same connector

receiving recess 41. Again, as discussed above with respect to amended claim 1, the Examiner's analysis requires prior art clip body 40 to have a construction that is neither shown nor suggested in the cited reference. The clip body 40 and the connection verifying portion 42,46, which comprise (in part) the same connector receiving recess 41, are not **separated** (i.e. set apart or detached) as recited in claim 1. Therefore, the prior art construction does not have any equivalent to the connection part (109) to separate the first and second side wall portions from each other.

With respect to claim 6, the Examiner's position, in the sentence on lines 6-8 of page 3, is that the reinforcement ribs 46a connect the verification portion to the connector part, the Examiner defining the connector part as structure between the pipe receiving recess 41 and the verification portion 42,46. This rejection is respectfully traversed. First of all, there is no connector part or equivalent thereof in the cited reference as discussed above with respect to claims 1 and 5. Further, assuming that part of the U-shaped connector receiving recess 41 comprises the connector part, there is clearly no direct connection between reinforcing ribs 46a and U-shaped recess 41.

With respect to claim 7, applicants acknowledge the concentricity between the first and second arcuate wall portions, whether they comprise interior surface 41 of the U-shaped recess or that interior surface and the surface of the semicircular snap-fit portion 44a. However, claim 7 is allowable because of its dependency from allowable claim 5.

With respect to claim 8, the Examiner asserts, in the sentence on lines 9 and 10 of page 3, that the reinforcing rib 46a is formed along an entire circumference of the outer surface of the connection verifying portion 46. This rejection is also traversed. First of all, the reinforcing rib does not extend circumferentially around a radially outer surface of the connection verifying portion as recited in amended claim 1. Furthermore, in the connector construction shown in the cited reference, the ribs are clearly not circumferential with respect to verifying portion 46 and, at best, the ribs 46a extend oppositely along only the flat vertical surfaces of end wall 42 and are not circumferential.

With respect to claim 9, the Examiner notes that the reinforcing ribs 46a consist of a plurality of reinforcing ribs, as recited in claim 9. However, claim 9 requires that the

Application No. 10/768,501
Amendment Dated November 11, 2005
Reply to Office Action of July 12, 2005

reinforcement ribs (105) be arranged in axially spaced relation. The ribs 46a of the cited reference are clearly not axially spaced.

With respect to claim 10, the recited joint portion (107) has no identical or equivalent component in the prior art reference because, as indicated with respect to claim 9, the prior art discloses no axially spaced reinforcement ribs.

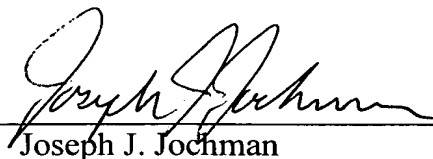
The Examiner's remarks in paragraph 2, end on page 3 with the statement that the verifying portion has an inner axial wall (inner axial wall of 42), where snap-fit portion 44c is axially spaced from the verifying portion. Applicant's are unable to determine to which claim this statement is directed. However, claims 3 and 4 are the only claims which recite the snap-fit portion (85). Nevertheless, in the Examiner's statement, recited above, the inner axial wall of wall 42 is spaced radially from the snap-fit portion 44c, not axially spaced therefrom.

Applicant's gratefully note the indicated allowability of claims 11 and 12, however, amended claims 1-10 are also believed to be in condition for allowance for the reasons discussed above. Therefore, allowance of claims 1-12 is respectfully requested.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

By



Joseph J. Jochman
Reg. No. 25,058

Andrus, Sceales, Starke & Sawall, LLP
100 East Wisconsin Avenue, Suite 1100
Milwaukee, Wisconsin 53202
Telephone: (414) 271-7590
Facsimile: (414) 271-5770